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| 10/822,447  | 04/08/2004  | Joseph J. Kubler     | 14364US24           | 2456             |
| 23446 7590 09/18/2008<br>MCANDREWS HELD & MALLOY, LTD<br>500 WEST MADISON STREET<br>SUITE 3400<br>CHICAGO, IL 60661 |             |                      |                     |                  |
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| HALIYUR, VENKATESH N  |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/822,447

**Applicant(s)**

KUBLER ET AL.

**Examiner**

VENKATESH HALIYUR

**Art Unit**

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/07/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-22,24-42 is/are rejected.
- 7) ☒ Claim(s) 2,23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This office action is further to notice of panel decision from pre-appeal brief review mailed on 06/24/2008. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However a new ground(s) of rejection has been made in this office action in view of Huang, Meier et al and a newly found reference Oneill et al.
2. Claims 1-42 are pending in the application.

***Claim Rejections – 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5-7,9-16,18-22,24,26-28,30-37,39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable by Huang [US Pat: 5,434,856] in view of Oneill et al [US Pat: 5,987,099].

Regarding claims 1,22 Huang in the invention of "Method for Monitoring Communication Talkgroups" disclosed a communication network (**Figs 1-3**) operating to support voice and data communication within a premises, said communication network comprising: a plurality of mobile network devices (**items 114-116, of Fig 1**) comprising a buffer (**item 200 of Fig 2**) that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information (**col 1, lines 58-67**); a stationary network device (**packet gateway, item 121 of Fig 1**); a wireless network (**item 111 of Fig 1**) that is used by each of said plurality of mobile network devices (**items 101-103 of Fig 1**) to selectively exchange voice and data packets with others of the plurality of mobile network devices; a hardwired network (**LAN, item 125 of Fig 1**) connected to both said stationary network device (**packet gateway**) and said wireless network (**items 111-113 of Fig 1, col 2, lines 1-23**); said hardwired network being used to route voice and data packets between said stationary network device and said plurality of mobile network devices which participate via said wireless network (**col 1, lines 58-67**); a telephone (**consoles, item 122 of Fig 1**), connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form (**col 2, lines 41-52**); said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information (**voice packets**) into an analog voice stream (**D/A, item 210 of Fig 2, col 3, lines 1-42**) and delivering the analog voice

stream to said telephone (**col 2, lines 24-40, lines 53-67**) but fails to disclose said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices. However, Oneill et al in the invention of "Low-Power Wireless System for Telephone Services" disclosed a method for said stationary network device (**base station controller, item 618 of Fig 5**) that converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices (**col 5, lines 56-65, Fig 5**). Therefore it would have been obvious for one of the ordinary skills in the art at the time the invention was made to use the method of converting analog voice streams received from said telephone into voice packets at the stationary device for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices as taught by Oneill et al in the system of Huang for the stationary network device to converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices. One is motivated as such in order to convert analog voice streams to digital voice packets to efficiently route packets over the voice packet network for deliver to mobile network devices.

Regarding claims 3,19,24,40, Huang disclosed said stationary network device is a computer (**routers, col 2, lines 53-67**).

Regarding claim 5, 26, 32 Huang disclosed that said stationary network device provides call setup assistance for said telephone (**communication links established via base stations and gateway with communication units, col 2, lines 3-13**).

Regarding claim 6, 16, 27, 37, Huang disclosed a telephone switching network (**frame relay switch, item 120 of Fig 1**) connected to said stationary network device (**packet gateways and routers, item 121 of Fig 1**); and said stationary network device selectively routes analog voice streams received from said telephone onto said telephone switching network, and said stationary network device selectively routes analog voice streams received from said telephone switching network to said telephone (**col 2, lines 4-40**).

Regarding claim 7, 28, Huang disclosed a communication network located within a premises for supporting voice and data exchanges (**Figs 1-3**), said communication network comprising: a plurality of portable terminals (**items 101-103 of Fig 1**), each comprising a wireless transceiver; each of said plurality of portable terminals capture voice in an analog voice stream form and generate therefrom digital voice packets (**col 2, lines 3-24**), and each of said plurality of portable terminals (**items 101-103, of Fig 1**) receive digital voice packets, generate therefrom analog voice streams, and reproduce voice from the analog voice streams (**col 3, lines 51-65**); each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received (**col 3, lines 3-10**); a

plurality of access devices (**base stations, items 114-116 of Fig 1**), each comprising a wireless transceiver (**item 22 of Fig 1**). Huang disclosed routing data/voice packets to portable terminals (**col 2, lines 23-40**), but fails to disclose said plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals. However, Oneill et al disclosed a method for plurality of access devices (**base stations**) using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals (**col 6, lines 48-62, col 12, lines 45-51, Figs 3,10**). Therefore it would have been obvious for one of the ordinary skills in the art at the time the invention was made to use the method for plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals as taught by Oneill et al in the system of Huang for plurality of access devices to use a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals. One is motivated as such in order to use a polling protocol to efficient and fair service for data transfers to/from the mobile terminals with the access devices.

Regarding claims 9,13,30,34 Huang disclosed that a telephone, connected to one of said plurality of access devices (**base stations**), that captures, delivers, receives and reproduces voice in an analog voice stream form (**col 2, lines 41-52**); said one of said plurality of access devices selectively converting digital voice packets received into an analog voice stream for delivery to said telephone for

reproduction (**col 3, lines 3-11**); and said one of said plurality of access devices selectively converting an analog voice stream received from said telephone into digital voice packets for delivery to one of said plurality of portable terminals (**col 3, lines 12-65**).

Regarding claim 10, 31 Huang disclosed a telephone switching network (**frame relay switch**) connected to said one of said plurality of access devices (**base stations**); said one of said plurality of access devices selectively routes analog voice streams received from said telephone through said telephone switching network; and said one of said plurality of access devices selectively routes analog voice streams received from said telephone switching network to said telephone (**col 2, lines 23-40**).

Regarding claims 11, 14, 35, Huang disclosed that said one of said plurality of access devices provides call setup assistance for said telephone (**communication links established via base stations with communication units, col 2, lines 3-13**).

Regarding claim 12, 33 Huang disclosed one of said access devices stores incoming digital voice packets for a queuing time period before converting the digital voice packets into an analog voice stream form (**D/A, item 210 of Fig 2, col 2, lines 53-67, col 3, lines 1-42**).

Regarding claims 15,36 Huang et al disclosed A communication network (**Fig 1**) for supporting voice exchanges, said communication network comprising: a voice stream network (**voice packet pertaining to particular communication talk**



**group)** that selectively routes voice signals captured in an analog voice stream form **(voice packets decoded and transmitted, Fig 1, col 1, lines 55-67, col 2, lines 4-13)**; a voice packet network, independent of said voice stream network, that selectively routes voice in a digital voice packet form **(col 2, lines 14-22)**; a first network device **(base station, item 114 of Fig 1)** that captures and delivers voice in the analog voice stream form, and said first network device receives and reproduces voice from the analog voice stream form **(col 3, lines 3-11)**; a second network device **(frame relay, item 120 of Fig 1)** independent of said first network device, that communicatively couples with said first network device to receive and deliver voice in the analog voice stream form **(base station and frame relay connected via communication links)**; said second network device selectively interfaces with said voice stream network to receive and route voice for said first network device in the analog voice stream form **(col 2, lines 24-29)**; said second network device selectively interfaces with said voice packet network to receive and route voice for said first network device in the digital voice packet form **(via packet gateway, item 121 of Fig 1, col 2, lines 29-40)**; Huang et al disclosed that said second network device converts digital voice to analog voice stream form **(col 2, lines 53-67, col 3, lines 1-11, Figs 2-3)** but fails to disclose that said second network device converts voice between the analog voice stream form and the digital voice packet form when needed for routing voice between said first network device and said voice packet network. However, Oneill et al disclosed methods for converting voice forms from analog to digital and digital to analog forms in a network device **(item 618 of Fig 5,**

**col 7, lines 42-65, Fig 5).** Therefore it would have been obvious for one of the ordinary skills in the art at the time the invention was made to use the method for converting voice forms from analog to digital and digital to analog forms in a network device as taught by Oneill et al in the system of Huang to include in the said second network device to convert voice between the analog voice stream form and the digital voice packet form when needed for routing voice between said first network device and said voice packet network. One is motivated as such in order to use a digital to analog (D/A) and analog to digital (A/D) converter in the second network device to efficiently convert voice packets to route over the voice packet network.

Regarding claims 18, 39, Huang disclosed that said first network device is a telephone that captures, delivers, receives and reproduces voice in an analog voice stream form (**col 3, lines 3-11**).

Regarding claims 20-21,41-42, said voice packet network comprises an Internet switching network (**frame relay over wide area network and packet networks**) and wherein said second network (**item 112 of Fig 1**) device is an access device (**base station, item 115 of Fig 1, col 2, lines 3-40**).

5. Claims 4, 8, 17, 25, 29, 38 rejected under 35 U.S.C. 103(a) as being unpatentable over Huang [US Pat: 5,434,856] and Oneill et al [US Pat: 5,987,099] further in view of Meier et al [US Pat: 5,394,436].

Regarding claims 4,17,25,38, Huang disclosed that said wireless network utilizes a polling protocol (**LAN protocol, col 2, lines 14-40**) and Oneill et al

disclosed a method for plurality of access devices (**base stations**) using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals (**col 6, lines 48-62, col 12, lines 45-51, Figs 3,10**), but both Huang and Oneill et al fails to disclose spanning tree routing. However, Meier et al in the invention of "Radio Frequency Local Area Network" disclosed an apparatus and method for optimal spanning tree network to control routing of data packets by the stationary network gateway device (**gateway unit, item 20 of Fig 1**) for mobile terminals (**Meier et al. col 2, lines 15-61, col 3, lines 56-65, Fig 1**). Therefore it would have been obvious for one of the ordinary skills in the art at the time the invention was made to use the method for routing data in a radio data communication system using spanning tree routing protocol as taught by Meier et al to include in the system of Huang as modified by Oneill et al to utilize spanning tree routing for both data and voice packets. One is motivated as such in order to minimize the voice packet delays transmitted to and from mobile terminals via a packet gateway connected to a mobile access device by using spanning tree routing protocol method by avoiding looping of routed data packets as taught by Meier et al to cover large area with the mobile communication system.

Regarding claims 8,29, Huang disclosed plurality of access devices (**base stations, items 114-116 of Fig 1**) for routing both data and voice packets (**col 2 lines 23-40**) and Oneill et al disclosed a method for plurality of access devices (**base stations**) using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals (**col 6,**

**lines 48-62, col 12, lines 45-51, Figs 3,10),** but both Huang and Oneill et al fails to disclose said plurality of access devices utilize spanning tree routing for both data and voice packets. However, Meier et al disclosed an apparatus and method for optimal spanning tree network to control routing of data packets by access device **(base transceiver units, items 22,24 of Fig 1)** for mobile terminals **(Meier et al. col 2, lines 15-34, col 3, lines 40-55, Fig 1).**

Therefore it would have been obvious for one of the ordinary skills in the art at the time the invention was made to use the method of routing both voice and data packets with spanning tree routing protocol by the plurality of access devices as taught by Meier et al to include in the system of Huang in the system of Huang as modified by Oneill et al to implement spanning tree routing protocol in plurality of access devices for routing both data and voice packets. One is motivated as such in order to minimize the voice packet delays transmitted to and from mobile terminals via a packet gateway connected to a mobile access device by using spanning tree routing protocol method by avoiding looping of routed data packets as taught by Meier et al to cover large area with the mobile communication system.

### ***Response to Arguments***

6. Applicant's arguments filed on 06/24/2008 have been fully considered but they are not persuasive. With regard to applicant's arguments for claims 1-42 that Huang

fails to teach, suggest, or disclose, at least the following limitations, the examiner respectfully disagrees and points applicants to Huang reference as follows;

With respect to applicant's argument that Huang fails to teach, suggest or disclose "...a telephone connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form", However, Huang disclosed an embodiment wherein the streams of decoded voice information is received, reproduced and delivered to the speaker in col 3, lines 3-11, Fig 2. The specification in page 27 also defines the stationary device as a base station (access point).

With respect to applicant's argument that Huang fails to teach, suggest or disclose that stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices..", However, Huang disclosed that the communication system (Figs 1-3) comprising interconnected wireless and LAN networks, communication units, base stations, packet gateway and consoles that provides packetized voice communication between the communication units of the talkgroups (col 2, lines 3-23, Fig 1). Therefore a broad interpretation of the the claim limitations has been made while rejecting claims in this office action.

***Allowable Subject Matter***

7. Claims 2, 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach and render obvious the limitation for the communication network of claim 1 wherein the predetermined queuing period is determined through examining delays found in test signal routing.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2619

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2619